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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
09/265,601	03/10/99	CHOI W	03364.P010

IM62/0621

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EXAMINER	
DOVE, T	
ART UNIT	**PAPER NUMBER**
1745	2

DATE MAILED: 06/21/00

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trad marks

Office Action Summary

Application No.	Applicant(s)
09/265,601	Choi et al.
Examiner	**Group Art Unit**
Tracy Dove	1745

☒ Responsive to communication(s) filed on *10 Mar 1999* .

☐ This action is **FINAL**.

☐ Since this application is in condition for allowance except for formal matters, **prosecution as to the merits is closed** in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

A shortened statutory period for response to this action is set to expire *3* month(s), or thirty days, whichever is longer, from the mailing date of this communication. Failure to respond within the period for response will cause the application to become abandoned. (35 U.S.C. § 133). Extensions of time may be obtained under the provisions of 37 CFR 1.136(a).

Disposition of Claims

☒ Claim(s) *1-8* is/are pending in the application.

Of the above, claim(s) _____ is/are withdrawn from consideration.

☐ Claim(s) _____ is/are allowed.

☒ Claim(s) *1-8* is/are rejected.

☐ Claim(s) _____ is/are objected to.

☐ Claims _____ are subject to restriction or election requirement.

Application Papers

☐ See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.

☐ The drawing(s) filed on _____ is/are objected to by the Examiner.

☐ The proposed drawing correction, filed on _____ is ☐approved ☐disapproved.

☐ The specification is objected to by the Examiner.

☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

☒ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).

☒ All ☐ Some* ☐ None of the CERTIFIED copies of the priority documents have been

☒ received.

☐ received in Application No. (Series Code/Serial Number) _____ .

☐ received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

*Certified copies not received: _____ .

☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

☒ Notice of References Cited, PTO-892

☐ Information Disclosure Statement(s), PTO-1449, Paper No(s). _____

☐ Interview Summary, PTO-413

☐ Notice of Draftsperson's Patent Drawing Review, PTO-948

☐ Notice of Informal Patent Application, PTO-152

--- SEE OFFICE ACTION ON THE FOLLOWING PAGES ---

DETAILED ACTION

Priority

Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Claim Rejections - 35 USC § 102/103

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless --
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1-4 are rejected under 35 U.S.C. 102/103(a) as being anticipated or alternatively unpatentable over Suzuki et al., US 4,978,600 "Suzuki".

Suzuki teaches an electrode for a lithium battery having a graphite composition with a diffraction intensity ratio ranging from 0.03 to 0.50. The graphite composition can be prepared by blending pitch coke and a high-crystalline graphite and then baking.

Hence, the claims are anticipated.

Alternatively, Suzuki does not teach the method steps as claimed in the instant invention.

However, the invention as a whole would have been obvious to one of ordinary skill in the art at the time the invention was made because irrespective of how the negative active material is made, the products are the same. Thus, whether the graphite-like carbon material is formed by the method of the instant invention or any other method of manufacturing the negative active material is used, the active material, as an end result, is the same. Furthermore, the courts have held that when similar products are produced, the product-by-process limitations are obvious. In re Brown 173 USPQ 685, In re Fessman 180 USPQ 324.

Claims 5-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sonobe et al., US 5,721,071 "Sonobe".

Sonobe discloses in col. 2, lin 17-30 a carbonized mesophase bead material obtained from pitch. The carbonized mesophase bead material is produced by heat-treating petroleum pitch or coal pitch for 1-2 hours at 400-450°C and calcining the mesophase beads at a temperature of 1500-3000°C, particularly 2000-2500°C, for 5-50 hours in an inert gas atmosphere. The inert gas may be nitrogen gas or argon gas.

Sonobe further teaches a polymerizate may be heat-treated at 350-700°C in an inert gas atmosphere, thereby providing a carbon precursor. In the case where a graphitic material in a fine powdery form is required, it is possible to pulverize a carbon precursor before carbonization and graphitization. A secondary battery produced by using a graphitic material prepared through

pulverization before graphitization is less liable to cause the decomposition of an electrolytic solution during charging and discharging. Pulverization before graphitization is preferred.

Sonobe does not explicitly state that the negative active material is heat-treated for 4 hours or more.

However, it would have been obvious to one of ordinary skill in the art at the time the invention was made to heat-treat the pitch in the range of 400-450°C for 4 hours because Sonobe teaches heat-treating at the same temperature range for 1-2 hours. One of ordinary skill would, through optimization of results, have known that the time the pitch was heat-treated could be varied. Thus wether heat-treating for 1-2 hours or 4 hours, one of ordinary skill would have known that similar materials would result.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tracy Dove whose telephone number is (703) 308-8821. The Examiner may normally be reached *Monday-Thursday from 8:00 AM - 6:30 PM.* My supervisor M. Nuzzolillo can be reached at (703) 305-3776. The Art Unit receptionist can be reached at (703) 308-0661 and the official fax number is (703) 305-3599.

June 13, 2000

Marie Nuzzolillo
Supervisory Patent Examiner
Technology Center 1700